

Date: January 21, 2014

To: Thomas J. Bonfield, City Manager
Through: Keith Chadwell, Deputy City Manager
From: Mark D. Ahrendsen, Director of Transportation
Subject: Agenda Item – Bid Award for Martin Luther King, Jr. Parkway and Archdale Drive Traffic Signal Installation and Communications Cable Installation

Executive Summary

The City of Durham Department of Transportation is requesting authorization to award a construction contract for the installation of a mast arm traffic signal at the intersection of Martin Luther King, Jr. Parkway and Archdale Drive. The construction contract also includes the installation of fiber optic communications cable to interconnect six signalized intersections along the Martin Luther King, Jr. Parkway corridor and the Public Works Operations Center.

The Department of Transportation recommends City Council authorize the City Manager to execute a contract with Fulcher Electric of Fayetteville, Inc. to install a mast arm traffic signal and fiber optic communications cable for the amount of \$219,726.75 with a contingency of \$32,959.01 (15%). This results in a total project amount of \$252,685.76. Funds are budgeted for these improvements in the Capital Improvement Program's Miscellaneous Thoroughfares and Street Improvements project.

Upon completion of the project, the City Department of Transportation will operate and maintain the traffic signal and communications infrastructure.

Recommendation

The Department of Transportation recommends that the City Council:

1. Authorize the City Manager to execute a contract with Fulcher Electric of Fayetteville, Inc. in the amount of \$219,726.75 for the installation of a mast arm traffic signal at Martin Luther King, Jr. Parkway and Archdale Drive, and the installation of fiber optic communications cable along the Martin Luther King, Jr. Parkway corridor;
2. Establish a project contingency fund in the amount of \$32,959.01; and
3. Authorize the City Manager to negotiate change orders to the project provided the cost of the contract, including all change orders, does not exceed the total project cost of \$252,685.76.

Background

In 2008, Transportation staff determined the stop-controlled intersection of Martin Luther King, Jr. Parkway and Archdale Drive minimally warranted a traffic signal. Funding for the

design of a mast arm traffic signal was identified in June of 2013 following an increase in correctable accidents. City Transportation staff prepared the design of the traffic signal plan since Martin Luther King, Jr. Parkway is a City-maintained thoroughfare. Transportation staff is recommending a construction contract be awarded to replace the stop controlled intersection with the installation of a mast arm traffic signal. The project includes a street light co-located on one pole and pedestrian activated crosswalk signals for improved pedestrian safety and access. Upgrading the intersection will enhance safety for motorists and pedestrians.

The contract also includes installation of fiber optic communications cable along the Martin Luther King, Jr. Parkway corridor to interconnect the following intersections:

- Martin Luther King, Jr. Parkway at Old Chapel Hill Road;
- Martin Luther King, Jr. Parkway at Dixon Road;
- Martin Luther King, Jr. Parkway at Hope Valley Road;
- Martin Luther King, Jr. Parkway and Archdale Drive;
- Martin Luther King, Jr. Parkway at South Roxboro Street; and
- Martin Luther King, Jr. Parkway at Cook Road.

City Transportation completed the design of the traffic signal system fiber optic communications plan. The interconnectivity will permit City traffic engineers to coordinate traffic signals along the Martin Luther King, Jr. Parkway corridor. Coordination will result in a decrease in traffic congestion, facilitate traffic signal operations maintenance, reduce vehicle fuel consumption, reduce vehicle emissions and improve safety for motorists, bicyclists and pedestrians. The system installation also includes extension of fiber communications cable from Martin Luther King, Jr. Parkway to the Public Works Operations Center for future service expansion.

Issues and Analysis

City Transportation analyzed the physical constraints of the intersection and the overall benefits of mast arm traffic signal installation. Transportation concludes that a traffic signal installation offers the most cost effective, safe, low maintenance traffic control measure to the traveling public. The fiber optic communications network offers the most cost-efficient method to monitor and adjust traffic signal timing along the corridor.

The following is a summary of bids received and opened on December 31, 2013:

- Fulcher Electric of Fayetteville, Inc. \$ 219,726.75
- Traffic Control Devices, Inc. \$ 253,722.35
- ALS of North Carolina, Inc. \$ 255,129.75
- Watson Electrical Construction Company, LLC \$ 280,956.00
- T & H Electrical Corporation \$ 314,882.25

The Department of Transportation recommends awarding the contract to the low bidder, Fulcher Electric of Fayetteville, Inc. in the amount \$219,726.75. This is less than the \$266,275.00 estimated engineer's probable cost.

Alternatives

- Approve the Construction Agreement with Fulcher Electric of Fayetteville, Inc. for \$ 219,726.75 to install a mast arm traffic signal at Martin Luther King, Jr. Parkway and

Archdale Drive, and the installation of fiber optic communications cable along the Martin Luther King, Jr. Parkway corridor.

- Reject all bids and retain the current stop control condition at Martin Luther King, Jr. Parkway and Archdale Drive. Do not interconnect the traffic signals along the Martin Luther King, Jr. Parkway corridor.

Financial Impact

The cost to install a mast arm traffic signal at Martin Luther King, Jr. Parkway and Archdale Drive, and the installation of fiber optic communications cable along the Martin Luther King, Jr. Parkway corridor is \$219,726.75 with a construction contingency of \$32,959.01 (15%). This results in a total project amount of \$252,685.76. The City is responsible for 100% of the total costs. The City funding source is the in the Capital Improvement Program's Miscellaneous Thoroughfares and Street Improvements project.

SDBE Summary

The Equal Opportunity/Equity Assurance Department reviewed the bid submitted by Fulcher Electric of Fayetteville, Inc. to determine compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting. It was determined that Fulcher Electric of Fayetteville, Inc. was in compliance with the Ordinance to Promote Equal Business Opportunities in City Contracting.

SDBE REQUIREMENTS

There were no SDBE requirements for this project.

WORKFORCE STATISTICS

The workforce statistics for Fulcher Electric of Fayetteville, Inc. are as follows:

Total Workforce	40	
Total Females	5	13%
Total Males	35	87%
Black Males	0	0%
White Males	18	45%
Other Males	17	43%
Black Females	0	0%
White Females	4	10%
Other Females	1	2%

Attachments

- A – Project Provisions
- B – Traffic Signal Plans
- C – Cable Routing Plans
- D – Construction Contract